REMARKS

Examiner Interview:

Applicant thanks the Examiner for the courtesies extended to his representative, Chung Park, during the telephone interview on June 29, 2006. In particular, Applicant thanks the Examiner for indicating that he would give a favorable consideration to Applicant's further amendments and remarks if claims 1, 16, and 31 are amended to include the discussed subject matter.

Rejection Under the Judicially Created Doctrine of Obviousness-type Double Patenting

Claims 1-45 stand rejected under the judicially created doctrine of non-statutory obviousness-type double patenting as purportedly unpatentable over claims 1-20 of copending U.S. Patent Application No., 09/828,257. In the interest of expediting prosecution, a Terminal Disclaimer over U.S. Patent Application No., 09/828,257 is filed herewith.

The Specification

The Office has suggested a new title "Single scheduling algorithm containing five standard scheduling methods for media playback." However, considering that the major functions of the presently claimed invention include distributing, scheduling, and displaying (controlling) advertising contents, Applicant respectfully submits that the current title is clearly indicative of the invention. As such, the current title remains unchanged in the present amendment.

Claims:

Claims 1-6, 8-21, 23-36, and 38-45 are pending. The subject matter of claims 7, 22, and 37 have been respectively incorporated in claims 1, 16, and 31, and claims 7, 22, and 37 have been canceled. The subject matter of claims 2, 17, and 32 have been respectively incorporated in claims 1, 16, and 31, and claims 2, 17, and 32 have been canceled. New claims 46-51 have been added. Support for the new claims 46-51 can be found in FIGS. 9-10 and the specification, at page 11, line 31 – page 13, line 20. Applicant respectfully requests reconsideration of the application in response to the non-final Office Action.

Claim objections

Claims 1, 16, and 31 have been objected to because of the alleged informalities in the use of the definite article: "the group consisting of." Claims 1, 16, and 31 have been amended to delete the Markush group expression "the group consisting of."

Claims 2-15 have been objected to because of the alleged informalities in the use of the indefinite article "a" in the preambles. Applicant respectfully submits that the indefinite article "a" is proper as the term method is not limited by the following clause. However, in order to comply with the Office's requirement and to expedite prosecution, the definite article "a" is replaced by an indefinite article "the."

Claims 17-30 have been objected to because of the alleged informalities in the use of the indefinite article "an" in the preambles. Applicant respectfully submits that the indefinite article "an" is proper as the term method is not limited by the following clause. However, in order to comply with the Office's requirement and to expedite prosecution, the definite article "an" is replaced by an indefinite article "the."

Claims 32-45 have been objected to because of the alleged informalities in the preambles. In accordance with the Office's suggestion, the preambles have been amended to recite "The computer program embodied on the computer readable medium as recited in claim...."

Claim 40 has been amended to correct a minor typographical error and recites "The computer program embodied on the computer readable medium as recited in claim 32...." Claim 45 has been amended to correct the minor typographical error and recites "communication."

In light of the changes discussed above, Applicant respectfully requests that the objection be withdrawn.

Claim Rejections – 35 USC §112

Claims 1, 16, and 31 have been rejected under 35 USC §112, second paragraph, as purportedly indefinite due to the recitations "the distribution of content" and "the content."

In regard to the recitation "the distribution of content," Applicant respectfully protests that the definite article "the" is proper. However, in order to comply with the Office's requirement and to expedite prosecution, the definite article "the" is replaced

by an indefinite article "a." Also, claims 1, 16, and 31 have been amended to provide an antecedent basis for the term "the present content" and includes a recitation "a present content in a database."

Claims 2, 7-11, 13-15, 17, 22-26, 28-30, 32, 37-41, and 43-45 have been rejected under 35 USC §112, second paragraph, as purportedly indefinite due to the recitation "<u>the</u> content." As set forth above, claims 1, 16, and 31, which are the base claims of claims 2, 7-11, 13-15, 17, 22-26, 28-30, 32, 37-41, and 43-45, have been amended to recite "a present content in a database," which provides a clear antecedent basis for the term "the present content" in claims 8-11, 13-15, 23-26, 28-30, 38-41, and 43-45.

Claims 3-6, 18-21, and 33-36 have been rejected under 35 USC §112, second paragraph, as purportedly indefinite due to the recitation "<u>the</u> content communication." Claims 3-6, 18-21, and 33-36 have been amended to recite "a communication of the present content."

Claims 7, 22, and 37 have been rejected under 35 USC §112, second paragraph, as purportedly indefinite due to the recitation "<u>the</u> input frequency." Claims 7, 22, and 37 have been canceled.

Claims 8, 23, and 38 have been rejected under 35 USC §112, second paragraph, as purportedly indefinite due to the recitation "<u>the</u> input interval." Claims 8, 23, and 38 have been amended to replace the recitation "the input interval" with "the interval."

Claims 9, 24, and 39 have been rejected under 35 USC §112, second paragraph, as purportedly indefinite due to the recitations "<u>the</u> input preference" and "the beginning of the recurring period." Claims 9, 24, and 39 have been amended to delete the recitation "the input preference relating to." As the recitation "the beginning of the recurring period" is recited in claims 8, 23, and 38, which claims 9, 24, and 39 depend from, Applicant respectfully submit that the recitation "the beginning of the recurring period" in claims 9, 24, and 39 has an antecedent basis.

Claims 10, 25, and 40 have been rejected under 35 USC §112, second paragraph, as purportedly indefinite due to the recitation "<u>the</u> input time of play preference." Claims 10, 25, and 40 have been amended to replace the recitation "the input time of play preference" with "the time of play."

Claims 11, 26, and 41 have been rejected under 35 USC §112, second paragraph, as purportedly indefinite due to the recitations "the trigger events preference" and "the occurrence of an event." Claims 11, 26, and 41 have been amended to replace the recitation "the trigger events preference" with "the trigger events." Regarding the recitation "the occurrence of an event," Applicant respectfully protests that the definite article "the" is proper. However, in order to comply with the Office's requirement and to expedite prosecution, the definite article "the" is replaced by an indefinite article "an."

Claims 12, 27, and 42 have been rejected under 35 USC §112, second paragraph, as purportedly indefinite due to the recitation "the event." Claim 12 has been amended to replace the recitation "the event" with "the external event," wherein the antecedent basis for the recitation can be found in claim 11.

In light of the changes discussed above, Applicant respectfully requests that the rejection of claim 1-45 be withdrawn.

Claim Rejections – 35 USC §103(a)

Claims 1-16, 16-21, and 31-36 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Stone et al. (US 6,446,045, hereinafter Stone) in view of Debey (US Patent Application Publication 2004/0064497).

In rejecting claims 1, 16, and 31, the Office has stated that:

Stone discloses a method / an apparatus / a computer program embodied on a computer readable medium for scheduling the distribution of content on remote display devices utilizing a network, comprising: a code segment for accessing the content in a database; a code segment including a scheduling algorithm...; a code segment for causing distribution of the content and the schedule data to a plurality of output devices utilizing a network; and a code segment for causing the output devices to communicate the content to an audience...Debey discloses the well-known concept of parameters selected from the group consisting of frequency, interval, time of play, trigger events, and category filtering.

Applicant respectfully disagrees. The Stone patent discloses a system that allows sellers to present/publish their inventory products and services in one or more media outlets. The system provides two types of publishing; "urgent publishing" and

"standard publishing." Standard publishing would be processed as a batch at a preset low-traffic or low utilization time (col. 19, l. 34-65). Clearly, the Stone system does not disclose the specifics of the recitation of claims 1, 16, and 31: "the scheduling algorithm being based on predetermined methods of processing input preferences relating to parameters including frequency, interval, time of play, trigger event and category filtering." Debey discloses a scheduling and routing computer that responds to a subscriber request for a particular program by retrieving the video program from the appropriate storage media and dividing the video program into a plurality of video segments (or video packets). The computer then schedules the plurality of video segments of the video program in accordance with a scheduling algorithm, where the algorithm produces the packet delivery sequences. Even though Debey discloses the concept of play content on remote devices and usage of play scheduling parameters, Debey is silent on the specifics of the recitation discussed above.

A review of the cited references reveals that there is no teaching in any reference that would motivate a skilled artisan to combine the teachings of any one or more of the cited references to arrive at Applicant's invention. As the cited references, taken individually or in combination, do not teach or suggest all the limitations of the claimed invention, Applicant respectfully submits that a *prima facie* case of obviousness has not been established, and claims 1, 16, and 31 are patentable. Claims 3-6, 18-21, and 33-36 respectively depend from claims 1, 16, and 31, rendering them also patentable for at least the same reasons.

To further differentiate the present claims from the cited references, claims 1, 16, and 31 have been amended and include a recitation "said frequency of play being assigned as a relative weight to be used by an output device to determine how often the present content is to be displayed relative to the play of other content in order to vary the play of the present content after the present content is deployed to each of the output devices individually...the output devices to communicate the present content to an audience based on the frequency of play weight associated with the present content as it relates to the frequency of play weight assigned to the other content; wherein a remote communication device that is coupled to the network can receive and respond to the schedule data to communicate the present content to one of the output devices, said remote communicative device including a mirror of

said scheduling algorithm so that said remote communicative device can continue to function in an event of a loss of the network communication." Support for the change can be found in the specification, page 7, lines 8-21, for example. This recitation also includes the subject matter of claims 7, 22, and 37, which have been canceled in the present amendment.

Canceled claims 7 and 22 include a recitation "the input frequency preference relates to a relative weight associated with each content, and wherein the processing of input preferences include: assigning a weight to the schedule data associated with each content, whereby in response to the schedule data, the output devices communicate the content preferentially according to the assigned weight." Canceled claim 37 includes a recitation "the input frequency preference relates to a weight of each content relative to other content and wherein the processing of input preferences includes a code segment for assigning a weight to the schedule data associated with the content, whereby in response to the schedule data, the output devices communicate the content preferentially according to the assigned weight." In rejecting previous claims 7, 22, and 37, the Office has stated that "Stone and Debey do not specifically mention about usage of relative weight associated with each content, assigning a weight to the schedule data and in response to the schedule data the output devices communicate the content preferentially according to the assigned weight." Then, the Office has stated:

"Official Notice" has been taken that both the concept and advantages of providing relative weight associate with each content, assigning a weight to the schedule data and in response to the schedule data the output devices communicate the content preferentially according to the assigned weight is well know and expected in the art. For example, Hendricks et al., 2003/0145323 discloses these limitations (e.g., paragraphs 204, 266, 274, 461, 463, 464), Cannon, 2001/0020236 also discloses these limitations (e.g., paragraphs 54, 302, 339, 363, 393, 404, 405, 449, 451, 460-463, 472, 497, 500, 501, 523, 596), Aggarwal et al. discloses these limitations (e.g., figure 9).

Applicant respectfully disagrees. A review of the additionally cited references reveals that such references do not teach the presently claimed invention nor cure the deficiencies of Stone and Debey in failing to teach the presently claimed invention. For instance, the Hendricks et al. patent application publication discloses

a channel architecture for displaying advertisement during commercial breaks in television programs. Each advertisement is assigned a number of times that it will be shown in a given time frame. The frequency of display may be based on various factors, including the number of requests and cost paid by the respective advertisers to have the commercial displayed. In marked contrast, the presently claimed invention discloses "said frequency of play being assigned as a relative weight to be used by an output device to determine how often the present content is to be displayed relative to the play of other content in order to vary the play of the present content after the present content is deployed to each of the output devices individually …the output devices to communicate the present content to an audience based on the frequency of play weight associated with the present content as it relates to the frequency of play weight assigned to the other content" as added to claims 1, 16, and 31, wherein the added recitation corresponds to the subject matter of canceled claims 7, 22, and 37. Stated differently, in the presently claimed invention, each advertisement is <u>not</u> assigned a number of times that it will be shown in a given time frame. As such, the Hendricks et al. patent application publication fails to teach the added recitation. Likewise, the Cannon patent application publication discloses methods and techniques for quickly accessing and sorting large quantity of demographic data for decision-making process, such as advertising. To handle the large quantity of data, the <u>demographic input data</u> is weighted (paragraph 0302). In contrast, the present invention discloses assigning a frequency to each content to be displayed, wherein the frequency relates to a relative weight. As such, the Cannon patent application fails to teach the recitation added to claims 1, 16, and 31. Aggarwal's patent discloses a method for dynamically placing objects on slots on a web page, where the method is based on the identification/classification of users. In contrast, the presently claimed invention discloses scheduling, distributing, and controlling media contents to be displayed to anonymous general public. As such, Applicant respectfully submits that the Aggarwal patent is irrelevant as prior art of the present invention. Perhaps more importantly, the Aggarwal patent is silent on the method step of assigning the frequency of play to the content.

As the Official Notice and cited references in the Official Notice do not teach the recitation added to claims 1, 16, and 31, Stone and Debey fail to teach or suggest Applicant's invention as recited in these claims even in light of the Official

Notice. Accordingly, Applicant respectfully submits that claims 1, 16, and 31 are allowable over cited references in view of the Official Notice.

Claims 8, 9, 23, 24, 38, and 39 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Stone and Debey in view of Cannon (US Patent Application Publication 2001/0020236).

This rejection is predicated on the erroneous characterization of Stone and Debey, which is respectfully traversed, as pointed out above. As such, Applicant respectfully submits that the rejection lacks foundation and must be withdrawn.

Furthermore, in rejecting claims 8, 9, 23, 24, 38, and 39, the Office has stated that "Stone and Debey do not specifically mention about usage of recurring period associated with a play or particular content....Cannon discloses the well-known concept of using recurring period associated with a play or particular content (e.g., paragraphs 500, 501, 579, 596), assigning a recurring period to the scheduled data and in response to the scheduled data the output devices causes the content to be communicated at the beginning of the recurring period (e.g., paragraphs 500, 501, 579, 596)." Applicant respectfully disagrees.

Cannon discloses a method for measuring the influence of advertising on the audience and finding the time weighted effective frequency of an advertisement. For instance, an advertisement may be aired at one of the three alternatives: 8:00 PM, 9:00 PM or 10:00 PM, and the influence of the advertisement on a group of audience is scored (paragraph [0501]). In contrast, the presently claimed invention discloses a method step for "assigning a recurring period to the schedule data associated with the present content, whereby in response to the scheduled data, the output devices causes the present content to be communicated at the beginning of the recurring period," as recited in claim 8. Thus, for instance, the scheduling algorithm of the presently claimed invention may generate schedule data to display content every hour. A review of Cannon reveals that Cannon is silent as to this method step and that there is no teaching in any reference that would motivate a skilled artisan to combine the teachings of any one or more of the cited references to arrive at Applicant's invention. As the cited references, taken individually or in combination, do not teach or suggest all the limitations of the claimed invention, Applicant respectfully submits that a *prima facie* case of obviousness has not been

established, and claim 8 is patentable. Claims 23 and 38 are directed to an apparatus and a computer program to perform the step recited in claim 8. As such, Applicant respectfully submits that clams 23 and 38 are also patentable. Claims 9, 24, and 39 respectively depend from claims 8, 23, and 38, rendering them also patentable.

Conclusion

Based on the reasons as set forth above, Applicants respectfully request allowance of all pending claims.

In the event that there are any questions concerning this paper, or the application in general, the Examiner is respectfully urged to telephone Applicant's undersigned representative so that prosecution of the application may be expedited.

Respectfully submitted,

BUCHANAN INGERSOLL & ROONEY PC

Date: __July 14, 2006__   By: _____

Chung S. Park
Registration No. 52093

P.O. Box 1404
Alexandria, Virginia 22313-1404
(650) 622-2300